2025

الصف الاول الاعدادي
الفصل الدراسي الثاني
1

فلسطين قضيتي

نسخة خاصة تضامنا مع القضية الفلسطينية

اصحاب الأرض

المتفوق

SCIENCE

7

إعداد

د / سالى أحمد عرفة

واتساب سلسلة المتفوق
01020508205

جروب المتفوق على فيسبوك

قناة المتفوق على يوتيوب

جروب المتفوق على تيليجرام

مراجعة الشهر

DESIGNED BY JOHN EHAB 01155278995

للتبرع لغاثة اهالي غزة اتصل على 15322
الهلال الاحمر المصري

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Question 01 Write scientific term

1)Mixture composed of the melts of two or more metals

(.....)

2) A mixture composed of the melts of two or more metals.

(.....)

3) The process of the conversion of the wastes into new usable substances. (.....)

4) An ion composed of more than one atom of more than one element. (.....)

5) A substance whose dissolution in water increases the percentage of hydrogen cations (H+) in the solution.

(.....)

6)substance whose dissolution in water increases the percentage of hydroxide anionsOH) in the solution.

(.....)

7)Metal oxides, some of which dissolve in water forming alkalis.

(.....)

8)Nonmetal oxides that dissolve in water forming acids.

(.....)

9)Rain resulting from the dissolution of acidic oxides in atmospheric water vapor.

(.....)

10)Chemical substances whose color differs in acidic medium from that in alkaline medium.

(.....)

11)An indicator that can differentiate between acids and alkalis or between different acids or different alkalis, based on their strength.

(.....)

12)A scale ranging between the values 0 to 14, used to determine the acidity and the basicity of solutions.

(.....)

13)Used in the manufacture of the dry cell.

(.....)

14)Alloy composed of copper (95%) and tin (5%). (.....)

15)Used in the manufacture of jewelry, statues, and medals.

(.....)

16)Secreted by the stomach and participates in food digestion.

(.....)

17)Secreted by the body and provides muscles with the necessary energy during their lack of oxygen during muscular effort.

(.....)

18)A basic substance that treats the acidic soil. (.....)

19)Used as a temporary treatment to neutralize gastric acidity.

(.....)

20)Differentiate between acidic, alkaline, and neutral substances.

(.....)

21)Determination of pH values for any solutions directly and accurately. (.....)

22)the only liquid metal (.....)

23) the only liquid non metal (.....)

Question 02 Write molecular formula of

1. Silver nitrate
2. Nickel carbonate
3. Ammonium sulphate
4. Magnesium chloride
5. Copper phosphate
6. Sodium carbonate
7. Calcium chloride
8. Zinc nitrate
9. Hydrogen fluoride
10. Ammonium chloride

11. Silver carbonate
12. Nickel phosphate
13. Copper carbonate
14. Sodium nitrate
15. Magnesium phosphate
16. Calcium sulphate
17. Zinc chloride
18. Sulfurous acid
19. Sodium phosphate
20. Hydrogen chloride
21. Copper chloride
22. Ammonium carbonate
23. Nickel chloride
24. Calcium nitrate
25. Zinc phosphate
26. Magnesium sulphate
27. Ammonium phosphate
28. Silver phosphate
29. Hydrogen bromide
30. Sodium hydroxide
31. Calcium phosphate

32. Zinc sulphate
33. Magnesium hydroxide
34. Nitrous acid
35. Nickel nitrate
36. Hydrogen sulphide
37. Silver chloride
38. Magnesium carbonate
39. Copper nitrate
40. Ammonium nitrate
41. Copper sulphate
42. Lithium hydroxide
43. Nickel sulphate
44. Silver sulphate
45. Magnesium nitrate
46. Sodium sulphate
47. Hydrochloric acid
48. Nitric acid
49. Phosphoric acid
50. Sulphuric acid

Question 03 Give reason for

1.The color of Hydrangea flowers varies according to the type of soil.

2.It is not possible to differentiate between hydrochloric acid and acetic acid by using litmus strip.

3. Recycling some metals.

4. Sodium hydroxide solution can be differentiated from ammonium hydroxide solution by using the electrical conductivity.

5. Aluminum (13Al) is harder and has a higher melting point than sodium (Na).

6. Acid rains have severe harmful impacts on humans and the environment in general.

7. Most salts are ionic compounds.

8. The neutral solution (distilled water) does not affect the color of both red and blue litmus strips.

9. The total charge of the molecule of any compound equals zero.

10. The acidity of grapes is stronger than that of tomatoes.

11. Some electrical wires are made of aluminum.

12. The dangers of burning fossil fuels in cars, factories, and power stations.

13. It is forbidden to taste, smell or touch any chemical substance in the laboratory without the teacher's permission.

14. It is not possible to drown in the Dead Sea.

15. It is possible to differentiate between acids and alkalis by using litmus strips.

16. Graphite is used in the manufacture of dry cells despite being a nonmetal.

17. Milk of magnesia is used as a temporary treatment for gastric acidity.

18. A piece of sulphur can be easily crumbled when hammered, while iron sheets are formed when hammered.

19. pH meter device is more accurate than universal indicator strips in determining the pH value of a solution.

20. The bronze alloy is used in jewellery and statues instead of copper metal.

21. The difference in the number of hydrogen atoms in acid molecules.

22. Aluminum ion Al^{3+} combines with one phosphate group to form an aluminum phosphate molecule, while it combines with three nitrate groups to form an aluminum nitrate molecule.

Question 04 What happen if

1.Burning of sulphur in the presence of oxygen followed by the dissolution of the product in water.

2.Two strips of blue litmus are dipped in both acetic acid and distilled water separately.

3. The number of valence electrons in metal atoms increases regarding the strength of the metallic bond.

4. Stirring an amount of nickel chloride and silver chloride salts separately in an amount of water.

5. Acids react with alkalis.

6. Bringing red and blue litmus strips wetted with water close to ammonia gas evolved from a tube.

7. Adding molten metal to another molten metal.

8. Burning of magnesium in the presence of oxygen followed by the dissolution of the product in water.

9. Two strips of litmus, one is blue and the other is red, are placed in a solution with pH value of 11.

10. The accumulation of lactic acid in the muscles of the human body.

11.we hammering on apiece of sulfur

12.we conduct aluminum and phosphorus according to electric conductors

13. We add sugar to sulfuric acid

14.we plant hydrangea flower in acidic soil and in basic soil

15.we connect distilled water To electricity according to conduction

Question 05 Choose the correct answer

1. Which of the following is the correct arrangement of the hardness of sodium (Na), magnesium (Mg), and aluminum (Al)?

a) Na > Mg > Al.
b) Mg > Na > Al
c) Al > Mg > Na.
d) Al > Na > Mg

2. The bronze alloy is formed by adding a small percentage of metal (X) to metal (Y). Which of the following identifies the metals (X) and (Y)?

a) (X): Copper, (Y): Tin.
b) (X): Copper, (Y):
c) Lithium(x)
d) Chlorine (y)

4. Which of the following oxides, when dissolved in atmospheric water vapor, produces acid rain?

a) SO_2.
b) CaO.
c) Na_2O.
d) MgO

5. What is the molecular formula of the acid secreted by the stomach and participates in food digestion?

a) HBr.
b) HCl.
c) H_2SO_4.
d) HNO_3

6. The ion present in lemon juice that causes the color change in the litmus strip is:

a) NH_4^+.
b) OH^-.
c) H^+.
d) NO_3^-

7. Which of the following properties is NOT a characteristic of graphite?

a) It is brittle.
b) It is a bad electrical conductor.
c) It is black in color.
d) It does not have metallic luster.

8. What is the common property of both sodium and copper?

a) Color.
b) Density.
c) Melting point.
d) Physical state

9. The compound HBr in its gaseous state is known as:

a) Hydrogen bromide.
b) Hydrobromic acid
c) Bromide hydride.
d) Hydrobromide acid

10. Which of the following substances are acids?

a) Lemon and baking soda.
b) Soap and toothpaste
c) Ketchup and grapes.
d) Detergents and ketchup

11. When hydrochloric acid (HCl) reacts with sodium hydroxide (NaOH), the formed salt is:

a) NaCl.
b) Na_2O.
c) H_2O.
d) $NaCl_2$

12. What is the similarity between metals and nonmetals?

a) They do not have metallic luster.
b) They are good conductors of heat.
c) They are malleable, ductile, and formable.
d) The last energy level in their atoms is not filled with electrons.

13. On dissolving calcium oxide in water and placing two litmus strips in the solution, the color of one of them changes into:

a) Red.
b) Purple.
c) Blue.
d) Yellow

14. The alkaline solution which is poured into clogged drains to clear them is likely to be:

a) HCl. b) H_2O. c) NaOH. d) H_2SO_4

15. Which of the following questions helps classify elements as metals or nonmetals?

a) Is it solid? b) Is it colored? c) Is it liquid? d) Is it brittle?

16. Which of the following atomic groups carries the same charge as the hydroxide group?

a) Ammonium. b) Nitrate. c) Sulphate. d) Phosphate

17. If the hardness of sodium (Na) on the hardness scale is 0.5, then the hardness of aluminum (Al) is:

a) 0.1. b) 0.25. c) 0.5. d) 2.75

18. Each of the following expresses the compound H_2S, except:

a) It is known as hydrogen sulfide in its gaseous state.

b) It is known as hydrofluoric acid in its solution form.

c) Its cation carries two positive charges.

d) Its anion carries two negative charges.

19. The correct name of H_2SO_3 acid is:

a) Sulfuric acid. b) Hypochloric acid

c) Sulfurous acid. d) Hypochlorous acid

20. All the following are harmful impacts of acid rain, except:

a) Destruction of forests. b) Corrosion of buildings.

c) Destruction of the human digestive system. d) Death of aquatic organisms.

21. Which of the following is a property of sodium hydroxide?

a) It dissolves in water, producing H^+ ions.

b) Its aqueous solution turns blue litmus strip to red.

c) Its solution reacts with hydrochloric acid forming salt and water.

d) Its solution reacts with lithium hydroxide solution forming salt and water.

22. The red litmus strip turns blue when placed in each of the following, except:

a) Oven cleaner. b) Ketchup. c) Toothpaste. d) Baking soda solution.

23. What is the substance that dissolves in water and turns it into an alkaline solution?

a) MgO. b) NO_2. c) SO_3. d) CO_2

24. Which of the following elements is a liquid with metallic luster?

a) Mercury. b) Bromine. c) Lithium. d) Chlorine

25. The ion whose percentage in the solution increases when an acidic oxide dissolves in water is:

a) H^+. b) OH^-. c) Na^+. d) Cl^-

26. If the anion which composes the acid HClO is called hypochlorite, then the acid is called:

a) Hypochlorous acid. **b) Perchloric acid.**

c) Hypochloric acid. **d) Chlorous acid.**

27. Which of the following is NOT a property of solid sodium hydroxide?

a) It dissolves in water and reacts with HCl acid.

b) It dissolves in water and does not react with HCl acid.

c) It does not dissolve in water and does not react with HCl acid.

d) It does not dissolve in water and reacts with HCl acid.

28. The molecular formula of hydrochloric acid is:

a) HCl. **b) HClO.** **c) $HClO_2$.** **d) $HClO_3$**

29. Which of the following is the correct formula for an oxyacid?

a) H_2O_3S. **b) H_2S.** **c) H_2SO_3.** **d) H_2O_2**

30. Each of the following acids is strong, except:

a) Nitric acid. **b) Acetic acid.** **c) Sulfuric acid.** **d) Hydrochloric acid.**

31. Each of the following is a weak electrical conductor, except:

a) Ammonium hydroxide. **b) Sodium hydroxide.**

c) Sulfurous acid. **d) Nitrous acid.**

32. The compound used in antacids is:

a) $MgCl_2$. **b) $Mg(OH)_2$.** **c) NaCl.** **d) H_2SO_4**

33. Among the basic oxides is:

a) SO_2. **b) SO_3.** **c) H_2CO_3.** **d) Na_2O**

34. All the following are properties of alkalis, except:

a) They contain OH^- ions.

b) They turn red litmus strip to blue.

c) They can react with sodium hydroxide solution.

d) They can react with hydrochloric acid solution.

35. The structures of all the negative atomic groups you have studied include:

a) Hydrogen element. **b) Nitrogen element.**

c) Oxygen element. **d) Sulfur element.**

36. Carbonate and sulfate groups are similar in:

a) Charge and number of elements only.

b) Charge and number of atoms only.

c) Number of elements and number of atoms only.

d) Charge, number of elements, and number of atoms.

37. All the following are oxides produced from burning fossil fuels, except:

a) SO_3. **b) Na_2O.** **c) NO_2.** **d) SO_2**

38. When the pH value of a solution changes from 8 to 5, that means it was:

a) Acidic and becomes alkaline. **b) Alkaline and becomes neutral.**

c) Acidic and becomes neutral. **d) Alkaline and becomes acidic.**

39. Which of the following expresses the solution of HI acid, except:

a) Gas dissolved in water.
b) It reacts with HCl acid.
c) It contains H^+ ions.
d) It turns blue litmus strip to red.

40. A red litmus strip is placed in solution (1), and no change in color occurs. When placed in solution (2), it turns blue. Which of the following is correct?

a) Solution (1): Neutral, Solution (2): Acidic.
b) Solution (1): Acidic, Solution (2): Neutral.
c) Solution (1): Acidic, Solution (2): Alkaline.
d) Solution (1): Alkaline, Solution (2): Acidic..

41. The acid secreted by the stomach that participates in food digestion has the molecular formula:

a) HBr. b) HCl. c) H_2SO_4. d) H_3PO_4

42. Each of the following is a molecular formula of an alkali, except:

a) NaOH. b) $Mg(OH)_2$. c) H_2S. d) NH_4OH

43. The ion present in lemon juice that causes a color change in litmus strip is:

a) NH_4^+. b) H^+. c) OH^-. d) NO_3^-

44. The compound HBr in its gaseous state is known as:

a) Hydrogen bromide.
b) Hydrobromic acid.
c) Bromide hydride.
d) Iodine.

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

45. Which of the following acids is NOT correctly named?

a) HNO_3 – Nitric acid.
b) HI – Hydroiodic acid.
c) H_2CO_3 – Carbonic acid.
d) H_3PO_4 – Sulfuric acid.

46. When hydrochloric acid (HCl) reacts with sodium hydroxide (NaOH), the formed salt is:

a) $NaCl_2$.
b) H_2O.
c) Na_2O.
d) NaCl

47. Which of the following oxides, when dissolved in atmospheric water vapor, produces acid rain?

a) SO_2.
b) CaO.
c) Na_2O.
d) MgO

48. All the following are harmful impacts of acid rain, except:

a) Destruction of forests.
b) Corrosion of buildings.
c) Destruction of the human digestive system.
d) Death of aquatic organisms.

49. The alkaline solution used to clear clogged drains is most likely:

a) HCl.
b) H_2O.
c) NaOH.
d) NH_4OH

50. Which of the following is NOT an acid?

a) Lemon juice.
b) Baking soda.
c) Ketchup.
d) Vinger

Question 06 Compare between

1)Distilled water and sulphuric acid in term of hydrogen and in term of conduct electricity

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

2)sodium and sulfur in term of (conduct electricity ,malleability , conduct electricity)

3) copper sulphate and nickel chloride according to color

4) sulphurous acid and sulphuric acid in terms of

Molecular formula - Effect on litmus strip - Electrical conductivity

5) oxygen nonmetal and aluminum metal "In terms of: Physical state - Electrical conductivity".

Question 06 Who was the scientist

1-Developed pH scale to differentiate between acidic, basic and neutral solutions.

2- Clarified that acids are substances that dissolve in water and yield positive hydrogen ions H+, while alkalis are substances that dissolve in water and yield negative hydroxide ions OH

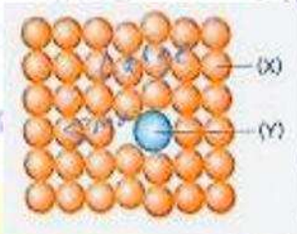
Question 08 Answer the question

1) The opposite figure represents the composition of bronze alloy:

(1) What are the two elements (X) and (Y)

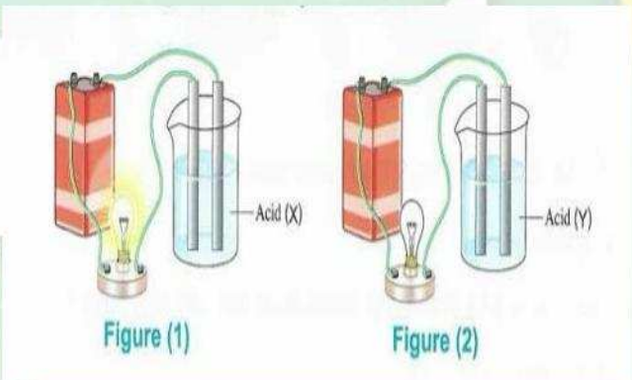
D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

(2) Why are alloys preferred to use instead of pure metals?



2) The following two figures represent the electrical conductivity of hydrochloric acid and acetic acid at the same concentration

Identify the acid in each figure, with explanation.



Question 09 Complete

1)strong acid are …….electric conductor but weak acid are …….electric conductor .

2) alkali turn …….litmus strips into ……..color.

3) the color of nickel chloride is ……. But copper sulphate is …….color

3) the bronze alloy consist if …….by 98% and …….by 2%

4) the silver chloride salt is …….in water

5)Oven cleaner from ……substances, while bananas from ……..substances.

6) The only liquid metal is ……while the only liquid nonmetal is…….

7)……,,. a good electrical conductor nonmetal and is used in the manufacture of…….

8)muscle cramps occur due to accumulation of ……acid

9)……salts is soluble in water

10)the molecular formula of sulphuric acid is……

11)…….gas remove color of litmus strips

12) the example of basic gas is……. but acidic gas is…….

13)the dead sea has density …….times more than red sea

14)the hydrangea flower accept…….color when grow in acidic soil

Nezakr نذاكر
إعداد
د/ سالى أحمد

Nezakr نذاكر

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

2025

الصف الاول الاعدادي
الفصل الدراسي الثاني
1

فلسطين قضيتي

نسخة خاصة تضامنا مع القضية الفلسطينية

اصحاب الأرض

المتفوق

SCIENCE

7

إعداد

د / سالى أحمد عرفة

واتساب سلسلة المتفوق
01020508205

جروب المتفوق على فيسبوك

قناة المتفوق على يوتيوب

جروب المتفوق على تيليجرام

مراجعة الشهر

DESIGNED BY JOHN EHAB 01155278995

للتبرع لغاثة اهالي غزة اتصل على 15322
الهلال الاحمر المصري

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

Question 01 Write scientific term

1)Mixture composed of the melts of two or more metals Alloy

2) A mixture composed of the melts of two or more metals.alloy

3)The process of the conversion of the wastes into new usable substances.recycling

4) An ion composed of more than one atom of more than one element. Atomic group

5) A substance whose dissolution in water increases the percentage of hydrogen cations (H+) in the solution.acid

6)substance whose dissolution in water increases the percentage of hydroxide anionsOH) in the solution.alkali

7)Metal oxides, some of which dissolve in water forming alkalis.basic oxides

8)Nonmetal oxides that dissolve in water forming acids.acidic oxides

9)Rain resulting from the dissolution of acidic oxides in atmospheric water vapor.acid rain

10)Chemical substances whose color differs in acidic medium from that in alkaline medium.indicators

11)An indicator that can differentiate between acids and alkalis or between different acids or different alkalis, based on their strength.

Universal indicator

12)A scale ranging between the values 0 to 14, used to determine the acidity and the basicity of solutions. Potential of hydrogen (pH

13)Used in the manufacture of the dry cell.graphite

14)Alloy composed of copper (95%) and tin (5%).bronze alloy

15)Used in the manufacture of jewelry, statues, and medals.

Bronze alloy

16)Secreted by the stomach and participates in food digestion.

Hydrochloric acid

17)Secreted by the body and provides muscles with the necessary energy during their lack of oxygen during muscular effort.

Lactic acid

18)A basic substance that treats the acidic soil. Calcium hydroxide Ca(OH)2

19)Used as a temporary treatment to neutralize gastric acidity.

Milk of magnesia Mg(OH)2

20)Differentiate between acidic, alkaline, and neutral substances.

Indicators

21)Determination of pH values for any solutions directly and accurately. pH meter device

22)the only liquid metal Mercury

23) the only liquid non metal Bromine

Question 02 Write molecular formula of

1. Silver nitrate – $AgNO_3$
2. Nickel carbonate – $NiCO_3$
3. Ammonium sulfate – $(NH_4)_2SO_4$

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

4. Magnesium chloride – $MgCl_2$

5. Copper phosphate – $Cu_3(PO_4)_2$

6. Sodium carbonate – Na_2CO_3

7. Calcium chloride – $CaCl_2$

8. Zinc nitrate – $Zn(NO_3)_2$

9. Hydrogen fluoride – HF

10. Ammonium chloride – NH_4Cl

11. Silver carbonate – Ag_2CO_3

12. Nickel phosphate – $Ni_3(PO_4)_2$

13. Copper carbonate – $CuCO_3$

14. Sodium nitrate – $NaNO_3$

15. Magnesium phosphate – $Mg_3(PO_4)_2$

16. Calcium sulfate – $CaSO_4$

17. Zinc chloride – $ZnCl_2$

18. Sulfurous acid – H_2SO_3

19. Sodium phosphate – Na_3PO_4

20. Hydrogen chloride – HCl

21. Copper chloride – $CuCl_2$

22. Ammonium carbonate – $(NH_4)_2CO_3$

23. Nickel chloride – $NiCl_2$

24. Calcium nitrate – $Ca(NO_3)_2$

25. Zinc phosphate – $Zn_3(PO_4)_2$

26. Magnesium sulfate – $MgSO_4$

27. Ammonium phosphate – $(NH_4)_3PO_4$

28. Silver phosphate – Ag_3PO_4

29. Hydrogen bromide – HBr

30. Sodium hydroxide – $NaOH$

31. Calcium phosphate – $Ca_3(PO_4)_2$

32. Zinc sulfate – $ZnSO_4$

33. Magnesium hydroxide – $Mg(OH)_2$

34. Nitrous acid – HNO_2

35. Nickel nitrate – $Ni(NO_3)_2$

36. Hydrogen sulfide – H_2S

37. Silver chloride – $AgCl$

38. Magnesium carbonate – $MgCO_3$

39. Copper nitrate – $Cu(NO_3)_2$

40. Ammonium nitrate – NH_4NO_3

41. Copper sulfate – $CuSO_4$

42. Lithium hydroxide – $LiOH$

43. Nickel sulfate – $NiSO_4$

44. Silver sulfate – Ag_2SO_4

45. Magnesium nitrate – $Mg(NO_3)_2$

46. Sodium sulfate – Na_2SO_4

47. Hydrochloric acid – HCl

48. Nitric acid – HNO_3

49. Phosphoric acid – H_3PO_4

50. Sulfuric acid – H_2SO4

Question 03 Give reason for

1.The color of Hydrangea flowers varies according to the type of soil.

As the flowers turn red when planted in acidic soil, while they turn blue when planted in basic soil.

2.It is not possible to differentiate between hydrochloric acid and acetic acid by using litmus strip.

Because it gives the same color with both of them.(red)

3. Recycling some metals.

• The decreasing of their abundance in the Earth's crust.

• The difficulty of extracting them from their ores.

• The lower cost of recycling them compared to extracting them from their ores.

4. Sodium hydroxide solution can be differentiated from ammonium hydroxide solution by using the electrical conductivity.

Because sodium hydroxide solution is a good electrical conductor, while ammonium hydroxide solution is a bad electrical conductor.

5. Aluminum (13Al) is harder and has a higher melting point than sodium (Na).

Because the number of valence electrons in aluminum atom 3 is greater than that in sodium atom 1, and as the number of valence electrons in metal atom increases, the strength of the metallic bond increases.

6. Acid rains have severe harmful impacts on humans and the environment in general.

As it causes the destruction of forests, harms the aquatic organisms, corrosion of buildings, and health problems in human respiratory system

7. Most salts are ionic compounds.

Because they are produced from the reaction of acids with alkalis, which the alkali cation combines with the acid anion forming an ionic compound.

8. The neutral solution (distilled water) does not affect the color of both red and blue litmus strips.

As the number of H^+ cations equals the number of OH anions in the solution (distilled water)

9. The total charge of the molecule of any compound equals zero.

Because the number of positive charges in the compound equals the number of negative charges within it.

10. The acidity of grapes is stronger than that of tomatoes.

As pH value of grapes is lower than pH value of tomatoes.

11. Some electrical wires are made of aluminum.

Because aluminum is a metal and is malleable, ductile and formable, and it is a good conductor of electricity.

12. The dangers of burning fossil fuels in cars, factories, and power stations.

Because it causes the evolution of acidic oxides such as SO, and NO2, which dissolve in atmospheric water vapour, forming acid rain that has severe harmful impacts on human and the environment

13. It is forbidden to taste, smell or touch any chemical substance in the laboratory without the teacher's permission.

Because some acids are burning and some alkalis are caustic.

14. It is not possible to drown in the Dead Sea.

Because the high percentage of the salts in water leads to increasing its density

15. It is possible to differentiate between acids and alkalis by using litmus strips.

Because acids turn blue litmus strip to red, while alkalis turn red litmus strip to blue.

16. Graphite is used in the manufacture of dry cells despite being a nonmetal.

Because graphite is the only good electrical conductor nonmetal

17. Milk of magnesia is used as a temporary treatment for gastric acidity.

To neutralize gastric acidity as it contains magnesium hydroxide $Mg(OH)_2$

18. A piece of sulphur can be easily crumbled when hammered, while iron sheets are formed when hammered.

Because sulphur is a brittle nonmetal, while iron is a malleable metal.

19. pH meter device is more accurate than universal indicator strips in determining the pH value of a solution.

Because pH meter device determines the pH value of any solution directly and accurately as indicated by the number displayed immediately on its digital screen, while universal indicator strips provide an approximate pH value.

20. The bronze alloy is used in jewelry and statues instead of copper metal.

Because it is harder than copper and resistant to rust.

21. The difference in the number of hydrogen atoms in acid molecules.

Because the number of hydrogen atoms in an acid molecule equals the magnitude of the charge of the anion (or the atomic group) that composes it.

22. Aluminum ion Al^{3+} combines with one phosphate group to form an aluminum phosphate molecule, while it combines with three nitrate groups to form an aluminum nitrate molecule.

Because the total charge of any salt equals zero, and the phosphate group carries three negative charges, while the nitrate group carries one negative charge.

Question 04 What happen if

1.Burning of sulphur in the presence of oxygen followed by the dissolution of the product in water.

Sulphur trioxide (SO_3) is formed, which dissolves in water to produce sulphuric acid solution (H_2SO_4).

2.Two strips of blue litmus are dipped in both acetic acid and distilled water separately.

In acetic acid, the blue strip changes to red, whereas in distilled water, the color of the strip does not change.

3. The number of valence electrons in metal atoms increases regarding the strength of the metallic bond.

The strength of metallic bond increases, and thus the metal becomes harder and has a higher melting point.

4. Stirring an amount of nickel chloride and silver chloride salts separately in an amount of water.

Nickel chloride salt dissolves in water, while silver chloride salt does not dissolve in it.

5. Acids react with alkalis.

A salt and water are formed

6. Bringing red and blue litmus strips wetted with water close to ammonia gas evolved from a tube.

The color of the red litmus strip turns to blue

7. Adding molten metal to another molten metal.

An alloy is formed whose properties differ from those of both metals

8. Burning of magnesium in the presence of oxygen followed by the dissolution of the product in water.

Magnesium oxide (MgO) is formed, which dissolves in water to produce magnesium hydroxide solution (Mg(OH)2).

9. Two strips of litmus, one is blue and the other is red, are placed in a solution with pH value of 11.

The red litmus strep turn into blue

Blue not change

10. The accumulation of lactic acid in the muscles of the human body.

Muscle cramps

11.we hammering on apiece of sulfur

It will be cracked

12.we conduct aluminum and phosphorus according to electric conductors

Aluminum is good electric conductor but phosphorus is bad electric conductor

13. We add sugar to sulfuric acid

It will be burnt

14.we plant hydrangea flower in acidic soil and in basic soil

It will by be burnt

15.we connect distilled water To electricity according to conduction

No connection as distilled water are bad electric conductors

FREE PALESTINE

Question 05 Choose the correct answer

1. Which of the following is the correct arrangement of the hardness of sodium (Na), magnesium (Mg), and aluminum (Al)?

a) Na > Mg > Al. b) Mg > Na > Al

c) Al > Mg > Na. d) Al > Na > Mg

2. The bronze alloy is formed by adding a small percentage of metal (X) to metal (Y). Which of the following identifies the metals (X) and (Y)?

a) (X): Copper, (Y): Tin. b) (X): tin, (Y):copper

c) Lithium(x) d) Chlorine (y)

4. Which of the following oxides, when dissolved in atmospheric water vapor, produces acid rain?

a) SO_2. b) CaO. c) Na_2O. d) MgO

5. What is the molecular formula of the acid secreted by the stomach and participates in food digestion?

a) HBr. b) HCl. c) H_2SO_4. d) HNO_3

6. The ion present in lemon juice that causes the color change in the litmus strip is:

a) NH_4^+. b) OH^-. c) H^+. d) NO_3^-

7. Which of the following properties is NOT a characteristic of graphite?

a) It is brittle. b) It is a bad electrical conductor.

c) It is black in color. d) It does not have metallic luster.

8. What is the common property of both sodium and copper?

a) Color. b) Density. c) Melting point. d) Physical state

9. The compound HBr in its gaseous state is known as:

a) Hydrogen bromide. b) Hydrobromic acid

c) Bromide hydride. d) Hydrobromide acid

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

10. Which of the following substances are acids?

a) Lemon and baking soda. b) Soap and toothpaste

c) Ketchup and grapes. d) Detergents and ketchup

11. When hydrochloric acid (HCl) reacts with sodium hydroxide (NaOH), the formed salt is:

a) NaCl. b) Na_2O. c) H_2O. d) $NaCl_2$

12. What is the similarity between metals and nonmetals?

a) They do not have metallic luster.

b) They are good conductors of heat.

c) They are malleable, ductile, and formable.

d) The last energy level in their atoms is not filled with electrons.

13. On dissolving calcium oxide in water and placing two litmus strips in the solution, the color of one of them changes into:

a) Red. b) Purple. c) Blue. d) Yellow

14. The alkaline solution which is poured into clogged drains to clear them is likely to be:

a) HCl. b) H_2O. c) NaOH. d) H_2SO_4

15. Which of the following questions helps classify elements as metals or nonmetals?

a) Is it solid? b) Is it colored? c) Is it liquid? d) Is it brittle?

16. Which of the following atomic groups carries the same charge as the hydroxide group?

a) Ammonium. b) Nitrate. c) Sulphate. d) Phosphate

17. If the hardness of sodium (Na) on the hardness scale is 0.5, then the hardness of aluminum (Al) is:

a) 0.1. b) 0.25. c) 0.5. d) 2.75

18. Each of the following expresses the compound H_2S, except:

a) It is known as hydrogen sulfide in its gaseous state.

b) It is known as hydrosulphuric acid in its solution form.

c) Its cation carries two positive charges.

d) Its anion carries two negative charges.

19. The correct name of H_2SO_3 acid is:

a) Sulfuric acid. b) Hypochloric acid

c) Sulfurous acid. d) Hypochlorous acid

20. All the following are harmful impacts of acid rain, except:

a) Destruction of forests. b) Corrosion of buildings.

c) Destruction of the human digestive system. d) Death of aquatic organisms.

21. Which of the following is a property of sodium hydroxide?

a) It dissolves in water, producing H^+ ions.

b) Its aqueous solution turns blue litmus strip to red.

c) Its solution reacts with hydrochloric acid forming salt and water.

d) Its solution reacts with lithium hydroxide solution forming salt and water.

22. The red litmus strip turns blue when placed in each of the following, except:

a) Oven cleaner. b) Ketchup. c) Toothpaste. d) Baking soda solution.

23. What is the substance that dissolves in water and turns it into an alkaline solution?

a) MgO. b) NO_2. c) SO_3. d) CO_2

24. Which of the following elements is a liquid with metallic luster?

a) Mercury. b) Bromine. c) Lithium. d) Chlorine

25. The ion whose percentage in the solution increases when an acidic oxide dissolves in water is:

a) H^+. b) OH^-. c) Na^+. d) Cl^-

26. If the anion which composes the acid HClO is called hypochlorite, then the acid is called:

a) Hypochlorous acid. b) Perchloric acid.

c) Hypochloric acid. d) Chlorous acid.

27. Which of the following is NOT a property of solid sodium hydroxide?

a) It dissolves in water and reacts with HCl acid.

b) It dissolves in water and does not react with HCl acid.

c) It does not dissolve in water and does not react with HCl acid.

d) It does not dissolve in water and reacts with HCl acid.

28. The molecular formula of hydrochloric acid is:

a) HCl. b) HClO. c) $HClO_2$. d) $HClO_3$

29. Which of the following is the correct formula for an oxyacid?

a) H_2O_3S. b) H_2S. c) H_2SO_3. d) H_2O_2

30. Each of the following acids is strong, except:

a) Nitric acid. b) Acetic acid. c) Sulfuric acid. d) Hydrochloric acid.

31. Each of the following is a weak electrical conductor, except:

a) Ammonium hydroxide. b) Sodium hydroxide.

c) Sulfurous acid. d) Nitrous acid.

32. The compound used in antacids is:

a) $MgCl_2$. b) $Mg(OH)_2$. c) NaCl. d) H_2SO_4

33. Among the basic oxides is:

a) SO_2. b) SO_3. c) H_2CO_3. d) Na_2O

34. All the following are properties of alkalis, except:

a) They contain OH^- ions.

b) They turn red litmus strip to blue.

c) They can react with sodium hydroxide solution.

d) They can react with hydrochloric acid solution.

35. The structures of all the negative atomic groups you have studied include:

a) Hydrogen element. b) Nitrogen element.

c) Oxygen element. d) Sulfur element.

36. Carbonate and sulfate groups are similar in:

a) Charge and number of elements only.

b) Charge and number of atoms only.

c) Number of elements and number of atoms only.

d) Charge, number of elements, and number of atoms.

37. All the following are oxides produced from burning fossil fuels, except:

a) SO_3. b) Na_2O. c) NO_2. d) SO_2

38. When the pH value of a solution changes from 8 to 5, that means it was:

a) Acidic and becomes alkaline. b) Alkaline and becomes neutral.

c) Acidic and becomes neutral. d) Alkaline and becomes acidic.

39. Which of the following expresses the solution of HI acid, except:

a) Gas dissolved in water. b) It reacts with HCl acid.

c) It contains H^+ ions. d) It turns blue litmus strip to red.

40. A red litmus strip is placed in solution (1), and no change in color occurs. When placed in solution (2), it turns blue. Which of the following is correct?

a) Solution (1): Neutral, Solution (2): Acidic.

b) Solution (1): Acidic, Solution (2): Neutral.

c) Solution (1): Acidic, Solution (2): Alkaline.

d) Solution (1): Alkaline, Solution (2): Acidic..

41. The acid secreted by the stomach that participates in food digestion has the molecular formula:

a) HBr. **b) HCl.** c) H_2SO_4. d) H_3PO_4

42. Each of the following is a molecular formula of an alkali, except:

a) NaOH. b) $Mg(OH)_2$. **c) H_2S.** d) NH_4OH

43. The ion present in lemon juice that causes a color change in litmus strip is:

a) NH_4^+. **b) H^+.** c) OH^-. d) NO_3^-

44. The compound HBr in its gaseous state is known as:

a) Hydrogen bromide. b) Hydrobromic acid.

c) Bromide hydride. d) Iodine.

45. Which of the following acids is NOT correctly named?

a) HNO_3 – Nitric acid. b) HI – Hydroiodic acid.

c) H_2CO_3 – Carbonic acid. **d) H_3PO_4 – Sulfuric acid.**

46. When hydrochloric acid (HCl) reacts with sodium hydroxide (NaOH), the formed salt is:

a) $NaCl_2$. b) H_2O. c) Na_2O. **d) NaCl.**

The alkaline solution used to clear clogged drains is most likely:

D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

47. Which of the following oxides, when dissolved in atmospheric water vapor, produces acid rain?

a) SO_2. b) CaO. c) Na_2O. d) MgO

48. All the following are harmful impacts of acid rain, except:

a) Destruction of forests. b) Corrosion of buildings.

c) Destruction of the human digestive system.

d) Death of aquatic organisms.

49. The alkaline solution used to clear clogged drains is most likely:

a) HCl. b) H_2O. c) NaOH. d) NH_4OH

50. Which of the following is NOT an acid?

a) Lemon juice. b) Baking soda. c) Ketchup. d) Vinger

Question 06 Compare between

1)Distilled water and sulphuric acid in term of hydrogen and in term of conduct electricity

Distilled water	Sulphuric acid
Neutral PH =7 Bad electric conductor	Acid PH <7 Good electric conductor

2)sodium and sulfur in term of (conduct electricity ,malleability , conduct electricity)

Sodium	Sulfur
Metal Good electric conductor Malleable Ductile Formable	Non metal Bad electric conductor not ductile, nonmalleable, no formable (brittle)

3) copper sulphate and nickel chloride according to color

Copper sulphate	Nickel chloride
Blue color	Green color

4) sulphurous acid and sulphuric acid in terms of

Molecular formula - Effect on litmus strip - Electrical conductivity

Sulphurous acid	Sulphuric acid
H_2SO_3 Turn blue litmus strip into red	H_2SO_4 Turn blue litmus strip into red

5) oxygen nonmetal and aluminum metal "In terms of: Physical state - Electrical conductivity".

Oxygen	Aluminum
Non metal Gas state Bad electric conductor	Metal Solid Good electric conductor

Question 06 Who was the scientist

1-Developed pH scale to differentiate between acidic, basic and neutral solutions SorenSorensen.

2- Clarified that acids are substances that dissolve in water and yield positive hydrogen ions H+, while alkalis are substances that dissolve in water and yield negative hydroxide ions OH

Arrhenius.

Question 08 Answer the question

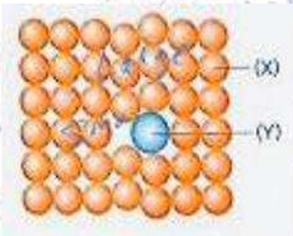
1) The opposite figure represents the composition of bronze alloy:

(1) What are the two elements (X) and (Y)

(2) Why are alloys preferred to use instead of pure metals?

Element (X): Copper.

Element (Y): Tin.



D.M.RAZK موقع الدكتور محمد رزق معلم الكيمياء التعليمي

(2) Because alloys are harder than pure metals, which tend to be soft and often unfit for industrial uses.

2) The following two figures represent the electrical conductivity of hydrochloric acid and acetic acid at the same concentration

Identify the acid in each figure, with explanation.

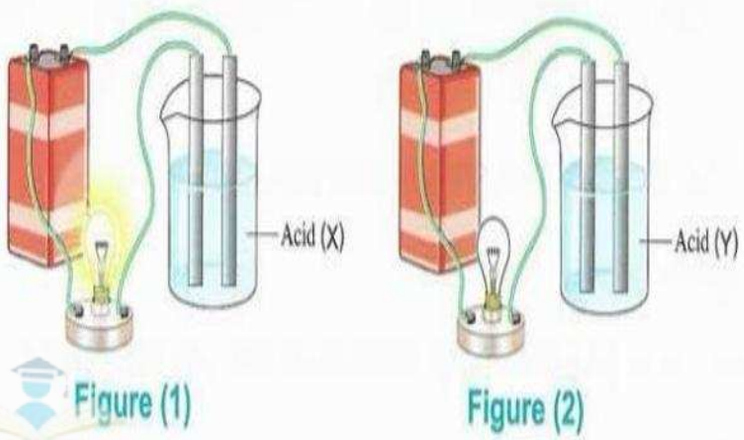


Figure (1) Figure (2)

(X): Represents hydrochloric acid, as it is a strong acid and a good electrical conductor.

(Y): Represents acetic acid, as it is a weak acid and a bad electrical conductor.

Question 09 Complete

1)strong acid are good electric conductor but weak acid are bad electric conductor .

2) alkali turn red litmus strips into blue color.

3) the color of nickel chloride is green But copper sulphate is blue color

3) the bronze alloy consist if copper by 98% and tin by 2%

4) the silver chloride salt is insoluble in water

5)Oven cleaner from alkaline substances, while bananas from acidic substances.

6) The only liquid metal is mercury while the only liquid nonmetal is bromine

7)graphite a good electrical conductor nonmetal and is used in the manufacture of dry cell

8)muscle cramps occur due to accumulation of lactic acid acid

9)sodium carbonate salts is soluble in water

10)the molecular formula of sulphuric acid is H_2SO_4

11)chlorine gas remove color of litmus strips

12) the example of basic gas is ammonia (NH_3)but acidic gas is CO_2 carbon dioxide

13)the dead sea has density 10 times more than red sea

14)the hydrangea flower accept red colour when grow in acidic soil

موقع الدكتور محمد رزق التعليمي

امسح الباركود بالموبيل لتثبيت التطبيق وتحميل كل الملازم مجانا وبسرعه

MR

حمل التطبيق الأن

GET IT ON Google Play

ملازم ابتدائي | ملازم اعدادي | ملازم ثانـــوي | كورسات ونتائج امتحانات

موقع الدكتور محمد رزق
Dr.MoRizK